REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 316

NONMETALLIC MINERAL ~~MINING AND~~ PROCESSING

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MARICOPA COUNTY

AIR POLLUTION CONTROL REGULATIONS

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 316

NONMETALLIC MINERAL ~~MINING AND~~ PROCESSING

SECTION 100 - GENERAL

101 PURPOSE: To limit the emission of particulate matter into the ambient air from any nonmetallic ~~mining operation~~ mineral processing plant or rock product processing plant.

102 APPLICABILITY: The provisions of this rule shall apply to any commercial and/or industrial nonmetallic mineral ~~mining~~ processing plant operation and/or rock product processing plant operation. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable New Source Performance Standards. In such case, the more stringent standard shall apply.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply~~:~~. See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

201 AFFECTED OPERATION - An operation that processes nonmetallic minerals or that is related to such processing and process sources including, but not limited to, crushers, grinding mills, screening equipment, conveying systems, elevators, transfer points, bagging operations, storage bins, enclosed truck and railcar loading stations, and truck dumping.

202 APPROVED EMISSION CONTROL SYSTEM - A system for reducing particulate emissions, consisting of collection and/or control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practice.

203 **AREA ACCESSIBLE TO THE PUBLIC** - Any retail parking lot or public roadway that is open to public travel primarily for the purposes unrelated to the dust generating operation/nonmetallic mineral processing plant, asphaltic concrete plant, and/or concrete plant and bagging operation.

~~203~~ **204** **ASPHALTIC CONCRETE PLANT/ASPHALT PLANT -** Any facility used to manufacture asphaltic concrete by mixing graded aggregate and asphaltic cements.

~~204~~ **205** **BAGGING OPERATION -** The mechanical process by which bags are filled with nonmetallic minerals.

~~205~~ **206** **BELT CONVEYOR -** A conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

207 **BULK MATERIAL** - Any material, including, but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete, that are capable of producing fugitive dust.

208 **CERTIFIED METHOD 9 OBSERVER** - An observer certified to determine opacity as visible emissions in accordance with the provisions of the Environmental Protection Agency (EPA) Method 9 as specified in 40 CFR, Part 60, Appendix A.

~~206~~ **209** **CONCRETE PLANT -** Any facility used to manufacture concrete by mixing water, aggregate, and cement.

~~207~~ **210** **CONVEYING SYSTEM -** A device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include, but are not limited to, feeders, belt conveyers, bucket elevators and pneumatic systems.

~~208~~ **211** **CRUSHER -** A machine used to crush any nonmetallic minerals, including, but not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

212 **DISTURBED SURFACE AREA** - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.

~~209~~ **213** **DRY MIX CONCRETE PLANT -** Any facility used to manufacture a mixture of aggregate and cements without the addition of water.

214 **DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the EPA or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

~~210~~ **215** **ENCLOSED TRUCK OR RAILCAR LOADING STATION -** That portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

216 **FABRIC FILTER BAGHOUSE** - Tube-shaped filter bags/Long small-diameter fabric tubes referred to as "bags" arranged in parallel flow paths designed to separate particles and flue gas.

217 **FUGITIVE DUST CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

218 **FUGITIVE DUST CONTROL SUPERVISOR** - A person with the authority to expeditiously employ sufficient fugitive dust control measures to ensure compliance with Rule 316 of these rules at an active operation.

~~211~~ **219** **FUGITIVE DUST EMISSION -** Particulate matter ~~that is~~ not collected by a capture system ~~and~~ that is ~~released to and suspended~~ entrained in the ambient air~~.~~ and is caused from human and/or natural activities.

~~212~~ **220** **GRINDING MILL -** A machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

221 **HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as, but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.

222 **MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act,

including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

~~213~~ **223** **NONMETALLIC MINERAL -** Any of the following minerals or any mixture of which the majority is any of the following minerals:

~~213.1~~ **223.1** Crushed and broken stone, including limestone, dolomite, granite, rhyolite, traprock, sandstone, quartz, quartzite, marl, marble, slate, shale, oil shale, and shell.

~~213.2~~ **223.2** Sand and gravel.

~~213.3~~ **223.3** Clay including kaolin, fireclay, bentonite, fuller's earth, ball clay, and common clay.

~~213.4~~ **223.4** Rock salt.

~~213.5~~ **223.5** Gypsum.

~~213.6~~ **223.6** Sodium compounds, including sodium carbonate, sodium chloride, and sodium sulfate.

~~213.7~~ **223.7** Pumice.

~~213.8~~ **223.8** Gilsonite.

~~213.9~~ **223.9** Talc and pyrophyllite.

~~213.10~~ **223.10** Boron, including borax, kernite, and colemanite.

~~213.11~~ **223.11** Barite.

~~213.12~~ **223.12** Fluorspar.

~~213.13~~ **223.13** Feldspar.

~~213.14~~ **223.14** Diatomite.

~~213.15~~ **223.15** Perlite.

~~213.16~~ **223.16** Vermiculite.

~~213.17~~ **223.17** Mica.

~~213.18~~ **223.18** Kyanite, including andalusite, sillimanite, topaz, and dumortierite.

~~213.19~~ **223.19** Coal.

~~214~~ **224** **NONMETALLIC MINERAL PROCESSING PLANT -** Any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, combine, crush, or grind any nonmetallic mineral, including, but not limited to: lime plants, coal fired power plants, steel mills, asphalt plants, concrete plants, Portland cement plants, and sand and gravel plants. Rock Product Processing Plants are included in this definition.

225 **OPEN AREAS AND VACANT LOTS** - Any of the following described in Section 225.1 through Section 225.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial

lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot.

225.1 An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.

225.2 A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.

225.3 A partially developed residential, industrial, institutional, governmental, or commercial lot.

225.4 A tract of land, in the nonattainment area, adjoining agricultural property.

226 OPEN STORAGE PILE - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or other equivalent method approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA), that the silt content is less than 5%.

~~215~~ **227 PARTICULATE MATTER -** Any material, except ~~uncombined~~ condensed water~~, which has a nominal aerodynamic diameter smaller than 100 microns (micrometers), and which exists in a finely divided form as a liquid or solid at actual conditions.~~ containing no more than analytical trace amounts of other chemical elements or compounds, which has a nominal aerodynamic diameter smaller than 100 microns (micrometers) and which exists in a finely divided form as a liquid or solid at actual conditions.

~~216~~ **228 PARTICULATE MATTER EMISSIONS -** Any and all finely divided solid or liquid materials other than ~~uncombined~~ condensed water released to the ambient air as measured by the applicable state and federal test methods.

229 PAVE - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

230 PORTLAND CEMENT PLANT - Any facility that manufactures Portland Cement using either a wet or dry process.

~~217~~ **231** **PROCESS -** One or more operations including those using equipment and technology in the production of goods or services or the control of by-products or waste.

~~218~~ **232** **PROCESS SOURCE -** The last operation of a process or a distinctly separate process which produces an air contaminant and which is not a pollution abatement operation.

233 **PUBLIC ROADWAYS** - Any roadways that are open to public travel.

234 **ROCK PRODUCT PROCESSING PLANT** - Any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, combine, crush, or grind any rock or rock product.

~~219~~ **235** **SCREENING OPERATION -** A device that separates material according to its size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

~~220~~ **236** **STACK EMISSIONS -** The particulate matter emissions that are released to the atmosphere from a capture system through a building vent, stack or other point source discharge.

~~221~~ **237** **STORAGE BIN -** A facility enclosure, hopper, silo or surge bin for the storage of nonmetallic minerals prior to further processing or loading.

238 **TRACKOUT** - Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.

239 **TRACKOUT CONTROL DEVICE -** A gravel pad, grizzly, wheel wash system, rumble grates, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.

~~222~~ **240** **TRANSFER POINT -** A point in a conveying operation where nonmetallic mineral is transferred from or to a belt conveyor except for transfer to a stockpile.

~~223~~ **241** **TRUCK DUMPING -** The unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include, but are not limited to, trucks, front end loaders, skip hoists, and railcars.

242 **UNPAVED HAUL/ACCESS ROAD** - Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.

243 **URBAN OR SUBURBAN AREA** - The definition of urban or suburban open area is included in Section 225 (Definition Of Open Areas And Vacant Lots) of this rule.

~~224~~ **244** **VENT -** An opening through which there is mechanically or naturally induced air flow for the purpose of exhausting air carrying particulate matter.

245 **WIND-BLOWN DUST** - Visible emissions, from any disturbed surface area, that are generated by wind action alone.

SECTION 300 - STANDARDS

301 ~~LIMITATIONS~~ **NONMETALLIC MINERAL PROCESSING PLANTS:** ~~No person shall discharge or cause or allow to be discharged into the ambient air:~~

301.1 ~~Stack emissions exceeding 7% opacity and containing more than 0.02 gr/dscf (50 mg/dscm) of particulate matter.~~ **Emission Limitations:**

a. The owner and/or operator of a nonmetallic mineral processing plant shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with a nonmetallic mineral processing plant such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of the nonmetallic mineral processing plant. This standard does not apply, if wind gusts exceed 25 miles per hour (m.p.h.) and if the following high wind fugitive dust control measures are implemented:

1. For an active operation:

i. Cease active operation for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and, if active operation is ceased for the remainder of the work day, stabilize the area;

ii. Apply water or other suitable dust suppressant other than water at least twice per hour, if active operation is located inside/within the nonattainment area;

iii. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of the EPA, maintain at least 70% optimum soil moisture content; or

iv. Implement Section 301.1(a)(1)(ii) or Section 301.1(a)(1)(iii) and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown dust leaving the site.

2. For an open storage pile:

i. Apply water twice per hour, if open storage pile is located inside/within the nonattainment area; or

ii. Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering.

3. For a disturbed surface area:

i. Uniformly apply and maintain surface gravel or a dust suppressant other than water;

ii. Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day.

~~301.2~~ **b.** ~~Fugitive dust emissions from any "transfer point" on a conveying system exceeding 7% opacity.~~ The owner and/or operator of a nonmetallic mineral processing plant shall not discharge or cause or allow to be discharged into the ambient air:

1. Stack emissions exceeding 7% opacity and containing more than 0.02 grains/dry standard cubic foot (gr/dscf) (50 mg/dscm) of particulate matter.

2. Fugitive dust emissions from any transfer point on a conveying system exceeding 7% opacity.

~~301.3~~ **3.** Fugitive dust emissions exceeding 15% opacity from any crusher.

~~301.4~~ **4.** Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping directly into any screening operation, feed hopper, or crusher.

~~301.5~~ **5.** Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher.

6. Fugitive dust emissions exceeding 20% opacity from unpaved haul/access roads and either silt loading equal to or greater than 0.33 oz/ft^2 or silt content exceeding 6%.

301.2 Certified Method 9 Observer: The owner and/or operator of a nonmetallic mineral processing plant shall have in place a Certified Method 9 Observer. Such Certified Method 9 Observer shall conduct routine surveillance, recordkeeping, and reporting to ensure compliance with visible emission requirements. Such Certified Method 9 Observer shall have authority to implement fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

301.3 Fugitive Dust Control Supervisor: The owner and/or operator of a nonmetallic mineral processing plant that processes 50 tons/hour of material shall have in place a Fugitive Dust Control Supervisor, who shall meet all of the following qualifications:

a. Be authorized by the owner and/or operator of the nonmetallic mineral processing plant to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.

b. Be authorized by the owner and/or operator of the nonmetallic mineral processing plant to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

c. Be on-site at the nonmetallic mineral processing plant or be available on-site at the nonmetallic mineral processing plant within 30 minutes.

d. Be issued a valid Certificate Of Completion of the Maricopa County Fugitive Dust Control Class.

e. Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.

301.4 **Open Storage Piles And Material Handling:** The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following fugitive dust control measures:

a. Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Spray material with water, as necessary; or

2. Spray material with a dust suppressant other than water, as necessary.

b. When not conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Cover all open storage piles with tarps, plastic, or other material to prevent wind from removing the covering;

2. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods

approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of the EPA, maintain at least 70% of the optimum soil moisture content;

3. Meet one of the following stabilization requirements:

i. Maintain a visible crust;

ii. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

iii. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;

iv. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;

v. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;

vi. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

vii. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the EPA; or

4. Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If complying with this work practice, the owner and/or operator of the nonmetallic mineral processing plant must also comply with the silt loading standards in Section 301.4(b)(2) of this rule or the stabilization requirements in Section 301.4(b)(3) of this rule.

c. When installing an open storage pile for a new nonmetallic mineral processing plant, the owner and/or operator shall implement all of the following fugitive dust control measures:

1. Install and utilize a permanent sprinkler system to spray water and/or a dust suppressant other than water onto an open storage pile, if an open storage pile is greater than 10 feet in height and is installed within 500 feet of off-site occupied buildings or residential areas.

2. Limit the height of an open storage pile to less than 45 feet, if the open storage pile has greater than 5% silt content.

301.5 Surface Stabilization Where Support Equipment And Vehicles Operate: The owner and/or operator of a nonmetallic mineral processing plant shall stabilize surface soils where support equipment and vehicles will operate by implementing one of the following fugitive dust control measures:

a. Pre-water; or

b. Apply and maintain a dust suppressant other than water.

301.6 Unpaved Haul/Access Roads: The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following fugitive dust control measures:

a. Pave all entries, exits, and main traffic routes associated with the nonmetallic mineral processing plant with a cohesive hard surface (e.g., 1 inch rock or recycled asphalt).

1. The owner and/or operator of a nonmetallic mineral processing plant shall require/direct/restrict all batch trucks and material delivery trucks to remain on paved surfaces or surfaces maintained with gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, when entering, conducting primary functions within the nonmetallic mineral processing plant, and exiting the nonmetallic mineral processing plant.

2. If paving all entries, exits, and main traffic routes associated with the nonmetallic mineral processing plant is prohibited, then an owner and/or operator of a nonmetallic mineral processing plant shall implement one of the following fugitive dust control measures:

i. Install speed bumps or dips for speed control;

ii. Limit vehicle speed to 15 m.p.h. or less and limit vehicle trips to no more than 20 per day (total for all unpaved haul/access roads);

iii. Apply water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%;

iv. Apply and maintain a dust suppressant other than water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%; or

v. Apply and maintain gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%.

3. An owner and/or operator of a temporary nonmetallic mineral processing plant (occupies a designated site for not more than 180 consecutive days) shall not be required to pave all entries, exits, and main traffic routes

associated with the nonmetallic mineral processing plant but shall implement one of the following fugitive dust control measures:

a. Apply water; or

b. Apply a dust suppressant other than water.

b. The owner and/or operator of a new nonmetallic mineral processing plant shall implement one of the following fugitive dust control measures:

1. If water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 50 feet from the property line of the new nonmetallic mineral processing plant; or

2. If a dust suppressant other than water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 25 feet from the property line of the new nonmetallic mineral processing plant.

301.7 **Screens And Conveyors:** The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following fugitive dust control measures:

a. Cover sides of all shaker screens.

b. Permanently mount watering systems at the inlet and outlet of all crushers, shaker screens, and material transfer points.

c. Install on all conveying systems an audible or visual operational overflow warning device to alert operators in sufficient time prior to the conveying system reaching capacity.

301.8 **Spilled Materials:** The owner and/or operator of a nonmetallic mineral processing plant shall immediately clean up or control with water or a dust suppressant other than water any spillage of materials over 9 square feet.

301.9 **Trackout:** The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following fugitive dust control measures:

a. Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and exterior surfaces of haul trucks and/or motor vehicles that traverse such nonmetallic mineral processing plant at all exits onto paved areas accessible to the public.

b. Clean up trackout immediately, when trackout extends a cumulative distance of 25 linear feet or more. Clean up trackout at the end of the workday for all other trackout.

c. Require/direct/restrict all traffic associated with the nonmetallic mineral processing plant to exit the nonmetallic mineral processing plant only after having crossed a trackout control device.

302 ~~LIMITATIONS~~ **ASPHALTIC CONCRETE PLANTS:** ~~No person shall discharge or cause or allow to be discharged into the ambient air:~~

302.1 ~~Stack emissions exceeding 20% opacity and containing more than 0.04 gr/dscf (90 mg/dscm) of particulate matter.~~ **Emission Limitations:**

a. The owner and/or operator of an asphaltic concrete plant shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with an asphaltic concrete plant such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of the asphaltic concrete plant. This standard does not apply, if wind gusts exceed 25 m.p.h. and if the following high wind fugitive dust control measures are implemented:

1. For an active operation:

i. Cease active operation for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and, if active operation is ceased for the remainder of the work day, stabilize the area;

ii. Apply water or other suitable dust suppressant other than water at least twice per hour, if active operation is located inside/within the nonattainment area;

iii. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of the EPA, maintain at least 70% optimum soil moisture content; or

iv. Implement Section 302.1(a)(1)(ii) or Section 302.1(a)(1)(iii) and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown dust leaving the site.

2. For an open storage pile:

i. Apply water twice per hour, if open storage pile is located inside/within the nonattainment area or

ii. Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering.

3. For a disturbed surface area:

i. Uniformly apply and maintain surface gravel or a dust suppressant other than water;

ii. Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day.

~~302.2~~ **b.** ~~Fugitive dust emissions exceeding 20% opacity from any other affected operation or process source.~~ The owner and/or operator of an asphaltic concrete plant shall not discharge or cause or allow to be discharged into the ambient air:

1. Stack emissions exceeding 20% opacity and containing more than 0.04 gr/dscf (90 mg/dscm) of particulate matter.

2. Fugitive dust emissions exceeding 20% opacity from any other affected operation or process source.

3. Visible emissions exceeding 5% opacity over a 6-minute period for non-rubberized asphaltic concrete plants.

302.2 Certified Method 9 Observer: The owner and/or operator of an asphaltic concrete plant shall have in place a person certified as a Method 9 observer. Such certified observer shall conduct routine surveillance, recordkeeping, and reporting to assure compliance with visible emission requirements. Such certified observer shall have authority to implement fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

302.3 Fugitive Dust Control Supervisor: The owner and/or operator of an asphaltic concrete plant that processes 50 tons/hour of material shall have in place a Fugitive Dust Control Supervisor, who shall meet all of the following qualifications:

a. Be authorized by the owner and/or operator of the asphaltic concrete plant to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.

b. Be authorized by the owner and/or operator of the asphaltic concrete plant to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

c. Be on-site at the asphaltic concrete plant or be available on-site at the asphaltic concrete plant within 30 minutes.

d. Be issued a valid Certificate Of Completion of the Maricopa County Fugitive Dust Control Class.

e. Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.

302.4 **Open Storage Piles And Material Handling:** The owner and/or operator of an asphaltic concrete plant shall implement all of the following fugitive dust control measures:

a. Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Spray material with water, as necessary; or

2. Spray material with a dust suppressant other than water, as necessary.

b. When not conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Cover all open storage piles with tarps, plastic, or other material to prevent wind from removing the covering;

2. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of the EPA, maintain at least 70% of the optimum soil moisture content;

3. Meet one of the following stabilization requirements:

i. Maintain a visible crust;

ii. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

iii. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;

iv. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;

v. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;

vi. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

vii. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the EPA; or

4. Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If complying with this work practice, the owner and/or operator of the asphaltic concrete plant must also comply with the silt loading standards in Section 302.4(b)(2) of this rule or the stabilization requirements in Section 302.4(b)(3) of this rule.

c. When installing an open storage pile for a new asphaltic concrete plant, the owner and/or operator shall implement all of the following fugitive dust control measures:

1. Install and utilize a permanent sprinkler system to spray water and/or a dust suppressant other than water onto an open storage pile, if an open

storage pile is greater than 10 feet in height and is installed within 500 feet of off-site occupied buildings or residential areas.

2. Limit the height of an open storage pile to less than 45 feet, if the open storage pile has greater than 5% silt content.

302.5 Surface Stabilization Where Support Equipment And Vehicles Operate: The owner and/or operator of an asphaltic concrete plant shall stabilize surface soils where support equipment and vehicles will operate by implementing one of the following fugitive dust control measures:

a. Pre-water; or

b. Apply and maintain a dust suppressant other than water.

302.6 Unpaved Haul/Access Roads: The owner and/or operator of an asphaltic concrete plant shall implement all of the following fugitive dust control measures:

a. Pave all entries, exits, and main traffic routes associated with the asphaltic concrete plant with a cohesive hard surface (e.g., 1 inch rock or recycled asphalt).

1. The owner and/or operator of an asphaltic concrete plant shall require/direct/restrict all batch trucks and material delivery trucks to remain on paved surfaces or surfaces maintained with gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, when entering, conducting primary functions within the asphaltic concrete plant, and exiting the asphaltic concrete plant.

2. If paving all entries, exits, and main traffic routes associated with the asphaltic concrete plant is prohibited, then an owner and/or operator of an asphaltic concrete plant shall implement one of the following fugitive dust control measures:

i. Install speed bumps or dips for speed control;

ii. Limit vehicle speed to 15 m.p.h. or less and limit vehicle trips to no more than 20 per day (total for all unpaved haul/access roads);

iii. Apply water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%;

iv. Apply and maintain a dust suppressant other than water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%; or

v. Apply and maintain gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%.

3. An owner and/or operator of a temporary asphaltic concrete plant (occupies a designated site for not more than 180 consecutive days) shall not be required to pave all entries, exits, and main traffic routes associated with the asphaltic concrete plant but shall implement one of the following fugitive dust control measures:

a. Apply water; or

b. Apply a dust suppressant other than water.

b. The owner and/or operator of a new asphaltic concrete plant shall implement one of the following fugitive dust control measures:

1. If water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 50 feet from the property line of the new asphaltic concrete plant; or

2. If a dust suppressant other than water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 25 feet from the property line of the new asphaltic concrete plant.

302.7 **Screens And Conveyors:** The owner and/or operator of an asphaltic concrete plant shall implement all of the following fugitive dust control measures:

a. Cover sides of all shaker screens.

b. Permanently mount watering systems at the inlet and outlet of all crushers, shaker screens, and material transfer points.

c. Install on all conveying systems an audible or visual operational overflow warning device to alert operators in sufficient time prior to the conveying system reaching capacity.

302.8 **Spilled Materials:** The owner and/or operator of an asphaltic concrete plant shall immediately clean up or control with water or a dust suppressant other than water any spillage of materials over 9 square feet.

302.9 **Trackout:** The owner and/or operator of an asphaltic concrete plant shall implement all of the following fugitive dust control measures:

a. Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and exterior surfaces of haul trucks and/or motor vehicles that traverse such asphaltic concrete plant at all exits onto paved areas accessible to the public.

b. Clean up trackout immediately, when trackout extends a cumulative distance of 25 linear feet or more. Clean up trackout at the end of the workday for all other trackout.

c. Require/direct/restrict all traffic associated with the asphaltic concrete plant to exit the asphaltic concrete plant only after having crossed a trackout control device.

302.10 **Drum Dryers And Filler Silos:** The owner and/or operator of an asphaltic concrete plant shall implement all of the following fugitive dust control measures:

a. **Drum Dryer:** The drum dryer exhaust shall be vented to and controlled by a properly sized fabric filter baghouse.

b. **Filler Silo:** An audible or visual operational overflow warning device shall be installed on each filler silo (e.g., lime filler silo) to alert operators in sufficient time prior to the filler silo reaching capacity.

303 ~~LIMITATIONS CONCRETE PLANTS AND BAGGING OPERATIONS:~~ **CONCRETE PLANTS AND BAGGING OPERATIONS:** ~~No person shall discharge or cause or allow to be discharged into the ambient air:~~

303.1 ~~Stack emissions exceeding 7% opacity.~~ **Emission Limitations:**

a. The owner and/or operator of a concrete plant and bagging operation shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with a concrete plant and bagging operation such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of the concrete plant and bagging operation. This standard does not apply, if wind gusts exceed 25 miles per hour and if the following high wind fugitive dust control measures are implemented:

1. For an active operation:

i. Cease active operation for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and, if active operation is ceased for the remainder of the work day, stabilize the area;

ii. Apply water or other suitable dust suppressant other than water at least twice per hour, if active operation is located inside/within the nonattainment area;

iii. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other

equivalent method approved by the Control Officer and the Administrator of the EPA, maintain at least 70% optimum soil moisture content; or

iv. Implement Section 303.1(a)(1)(ii) or Section 303.1(a)(1)(iii) and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown dust leaving the site.

2. For an open storage pile:

i. Apply water twice per hour, if open storage pile is located inside/within the nonattainment area or

ii. Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering.

3. For a disturbed surface area,

i. Uniformly apply and maintain surface gravel or a dust suppressant other than water;

ii. Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day.

b. The owner and/or operator of a concrete plant and bagging operation shall not discharge or cause or allow to be discharged into the ambient air:

1. Visible emissions exceeding 30 seconds in any six-minute period, for all filter systems, mixer loading, and batch truck loading emission control devices.

2. Stack emissions exceeding 7% opacity.

~~303.2~~ **3.** Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping directly into any screening operation, feed hopper or crusher.

~~303.3~~ **4.** Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper or crusher.

303.2 Certified Method 9 Observer: The owner and/or operator of a concrete plant and bagging operation shall have in place a person certified as a Method 9 observer. Such certified observer shall conduct routine surveillance, recordkeeping, and reporting to assure compliance with visible emission requirements. Such certified observer shall have authority to implement fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

303.3 Fugitive Dust Control Supervisor: The owner and/or operator of a concrete plant and bagging operation that processes 50 tons/hour of material shall have in place a Fugitive Dust Control Supervisor, who shall meet all of the following qualifications:

a. Be authorized by the owner and/or operator of the concrete plant and bagging operation to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.

b. Be authorized by the owner and/or operator of the concrete plant and bagging operation to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

c. Be on-site at the concrete plant and bagging operation or be available on-site at the concrete plant and bagging operation within 30 minutes.

d. Be issued a valid Certificate Of Completion of the Maricopa County Fugitive Dust Control Class.

e. Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.

303.4 **Open Storage Piles And Material Handling:** The owner and/or operator of a concrete plant and bagging operation shall implement all of the following fugitive dust control measures:

a. Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Spray material with water, as necessary; or

2. Spray material with a dust suppressant other than water, as necessary.

b. When not conducting stacking, loading, and unloading operations, implement one of the following fugitive dust control measures:

1. Cover all open storage piles with tarps, plastic, or other material to prevent wind from removing the covering;

2. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of the EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of the EPA, maintain at least 70% of the optimum soil moisture content;

3. Meet one of the following stabilization requirements:

i. Maintain a visible crust;

ii. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

iii. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;

iv. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;

v. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;

vi. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

vii. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the EPA; or

4. Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing this work practice, the owner and/or operator of the concrete plant and bagging operation must also implement the silt loading standards in Section 303.4(b)(2) of this rule or the stabilization requirements in Section 303.4(b)(3) of this rule.

c. When installing an open storage pile for a new concrete plant and bagging operation, the owner and/or operator shall implement all of the following fugitive dust control measures:

1. Install and utilize a permanent sprinkler system to spray water and/or dust suppressants other than water onto an open storage pile, if an open storage pile is greater than 10 feet in height and is installed within 500 feet of off-site occupied buildings or residential areas.

2. Limit the height of an open storage pile to less than 45 feet, if the open storage pile has greater than 5% silt content.

303.5 **Surface Stabilization Where Support Equipment And Vehicles Operate:** The owner and/or operator of a concrete plant and bagging operation shall stabilize surface soils where support equipment and vehicles will operate by implementing one of the following fugitive dust control measures:

a. Pre-water; or

b. Apply and maintain a dust suppressant other than water.

303.6 **Unpaved Haul/Access Roads:** The owner and/or operator of a concrete plant and bagging operation shall implement all of the following fugitive dust control measures:

a. Pave all entries, exits, and main traffic routes associated with the concrete plant and bagging operation with a cohesive hard surface (e.g., 1 inch rock or recycled asphalt).

1. The owner and/or operator of a concrete plant and bagging operation shall require/direct/restrict all batch trucks and material delivery trucks to remain on paved surfaces or surfaces maintained with gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, when entering, conducting primary functions within the concrete plant and bagging operaton, and exiting the concrete plant and bagging operation.

2. If paving all entries, exits, and main traffic routes associated with the concrete plant and bagging operation is prohibited, then an owner and/or operator of a concrete plant and bagging operation shall implement one of the following fugitive dust control measures:

i. Install speed bumps or dips for speed control;

ii. Limit vehicle speed to 15 m.p.h. or less and limit vehicle trips to no more than 20 per day (total for all unpaved haul/access roads);

iii. Apply water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%;

iv. Apply and maintain a dust suppressant other than water, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%; or

v. Apply and maintain gravel, recycled asphalt, roofing shingles, tire chips, or other suitable material/cohesive hard surface, so that fugitive dust emissions do not exceed 20% opacity and silt loading is not equal to or greater than 0.33 oz/ft^2 or silt content does not exceed 6%.

3. An owner and/or operator of a temporary concrete plant and bagging operation (occupies a designated site for not more than 180 consecutive days) shall not be required to pave all entries, exits, and main traffic routes associated with the concrete plant and bagging operation but shall implement one of the following fugitive dust control measures:

a. Apply water; or

b. Apply a dust suppressant other than water.

b. The owner and/or operator of a new concrete plant and bagging operation shall implement one of the following fugitive dust control measures:

1. If water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 50 feet from the property line of the new concrete plant and bagging operation; or

2. If a dust suppressant other than water is the chosen dust control measure for an unpaved haul/access road, then the unpaved haul/access road shall be installed no closer than 25 feet from the property line of the new concrete plant and bagging operation.

303.7 **Screens And Conveyors:** The owner and/or operator of a concrete plant and bagging operation shall implement all of the following fugitive dust control measures:

a. Cover sides of all shaker screens.

b. Permanently mount watering systems at the inlet and outlet of all crushers, shaker screens, and material transfer points.

c. Install on all conveying systems an audible or visual operational overflow warning device to alert operators in sufficient time prior to the conveying system reaching capacity.

303.8 **Spilled Materials:** The owner and/or operator of a concrete plant and bagging operation shall immediately clean up or control with water or a dust suppressant other than water any spillage of materials over 9 square feet.

303.9 **Trackout:** The owner and/or operator of a concrete plant and bagging operation shall implement all of the following fugitive dust control measures:

a. Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and exterior surfaces of haul trucks and/or motor vehicles that traverse such concrete plant and bagging operation at all exits onto paved areas accessible to the public.

b. Clean up trackout immediately, when trackout extends a cumulative distance of 25 linear feet or more. Clean up trackout at the end of the workday for all other trackout.

c. Require/direct/restrict all traffic associated with the concrete plant and bagging operation to exit the concrete plant and bagging operation only after having crossed a trackout control device.

303.10 **Cement Silos:** The owner and/or operator of a concrete plant and bagging operation shall implement all of the following fugitive dust control measures:

a. Install on all cement silos a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf.

b. Install on all cement silos a pneumatic control system designed to shut-off cement silo filling process, if pressure from delivery truck is excessive.

303.11 Batch Mixer Feed Controls: The owner and/or operator of a concrete plant and bagging operation shall implement one of the following fugitive dust control measures:

a. A rubber fill tube;

b. A water spray;

c. A pickup device delivering air to a properly sized fabric filter baghouse or cartridge filter; or

d. An enclosed process building such that no visible emissions from the building occur during mixing activities.

304 ~~LIMITATIONS~~ **OTHER ASSOCIATED OPERATIONS:** All other ~~activities~~ operations not specifically listed in Sections 301, 302, or 303 of this rule associated with the ~~mining and~~ processing of nonmetallic minerals shall, at a minimum, meet the provisions of Rule 310 of these rules.

305 ~~REQUIREMENT FOR~~ **AIR POLLUTION CONTROL EQUIPMENT AND APPROVED EMISSION CONTROL SYSTEM (ECS)** ~~MONITORING EQUIPMENT~~**:** ~~For the purposes of this rule, an emission control system (ECS) is a system for reducing emissions of particulates, consisting of both collection and control devices, which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practices.~~

305.1 Operation And Maintenance (O&M) Plan Requirements For ECS:

a. An owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation subject to this rule shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.

b. The owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation subject to this rule shall submit to the Control Officer for approval the O&M Plan(s) of each ECS and of each ECS monitoring device that is used pursuant to this rule.

c. The owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation shall comply with all the identified actions and schedules provided in each O&M Plan.

305.2 Providing And Maintaining ECS Monitoring Devices: An owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation operating an ECS pursuant to this rule shall install, maintain, and calibrate monitoring devices described in the O&M ~~Plan~~ Plan(s). The monitoring devices shall measure pressures, rates of flow, and/or other operating conditions necessary to determine if the control devices are functioning properly.

305.3 O&M Plan Responsibility: An owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation that is required to have an O&M Plan pursuant to ~~subsection 305.1~~ Section 305.1 of this rule must fully comply with all O&M Plans that the owner ~~or~~ and/or operator has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Control Officer.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 O&M PLAN COMPLIANCE SCHEDULE: Any owner ~~or~~ and/or operator of a ~~facility~~ nonmetallic mineral processing plant, an asphaltic conrete plant, a concrete plant and bagging operation, and/or any other associated operation employing an ECS device as of ~~April 21, 1999~~ (date of rule adoption) to meet the requirements of this rule, shall file, by ~~October 18, 1999~~ (date 6 months after date of rule adoption), an O&M Plan with the Control Officer in accordance with ~~subsection 501.3~~ Section 305.1 of this rule.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any ~~person~~ owner and/or operator of a nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation subject to this rule shall comply with the following requirements. Records shall be retained for 5 years and shall be made available to the Control Officer upon request.

501.1 Operational information required by this rule shall be kept in a complete and consistent manner on-site and be made available without delay to the Control Officer upon request.

501.2 Records of the following process and operational information, as applicable, are required:

a. General Data: Daily records shall be kept for all days that a ~~plant~~ nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation is actively operating. Records shall include all of the following: ~~hours of operation; type of batch operation (wet, dry, central); throughput per day of basic raw materials including sand, aggregate, cement, (tons/day); volume of concrete and asphaltic concrete produced per day; volume of aggregate mined per day (cu. yds./day); composition of a cubic yard of concrete produced (percent cement, sand, aggregate, admixture, water, fly ash, etc.); composition of a cubic yard of asphaltic concrete produced (percent cement, sand, aggregate, gypsum, admixture, water, fly ash, etc.); amount of each basic raw material including sand, aggregate, cement, fly ash delivered per day (tons/day).~~

1. Hours of operation;

2. Type of batch operation (wet, dry, central);

3. Throughput per day of basic raw materials including sand, aggregate, cement (tons/day);

4. Volume of concrete and asphaltic concrete produced per day;

5. Volume of aggregate mined per day (cubic yards/day);

6. Composition of a cubic yard of concrete produced (percent cement, sand, aggregate, admixture, water, fly ash);

7. Composition of a cubic yard of asphaltic concrete produced (percent cement, sand, aggregate, gypsum, admixture, water, fly ash); and

8. Amount of each basic raw material including sand, aggregate, cement, fly ash delivered per day (tons/day).

b. Additional Data For Dry Mix Concrete Plants: ~~The number of bags of dry mix produced per day; weight (size) of bags of dry mix produced per day; kind and amount of fuel consumed in dryer (cu. ft./day or gals./day); kind and amount of any back-up fuel (if any).~~ Daily records shall be kept for all days that a dry mix concrete plant is actively operating. Records shall include all of the following:

1. Number of bags of dry mix produced;

2. Weight (size) of bags of dry mix produced;

3. Kind and amount of fuel consumed in dryer (cubic feet/day or gallons/day); and

4. Kind and amount of any back-up fuel, if any.

c. Control And Monitoring Device Data: ~~Baghouse records shall include dates of inspection, dates and designation of bag replacement, dates of service or maintenance, related activities, static pressure gauge (manometer) hourly readings. Scrubber records shall include dates of service or maintenance related activities; the scrubbing liquid flow rate; the pressure or head loss; and/or any other operating parameters which need to be monitored to assure that the scrubber is functioning properly and operating within design parameters. Records of time, date and cause of all control device failure and down time shall also be maintained.~~ Daily records shall be kept for all days that control and monitoring devices are actively operating. Records shall include all of the following:

1. For a fabric filter baghouse:

i. Date of inspection;

ii. Date and designation of bag replacement;

iii. Date of service or maintenance related activities;

iv. Static pressure gauge (manometer) readings; and

v. Time, date, and cause of fabric filter baghouse failure and/or down time, if applicable.

2. For a scrubber:

1. Date of service or maintenance related activities;

2. Liquid flow rate;

3. Pressure or head loss;

4. Other operating parameters that need to be monitored to assure that the scrubber is functioning properly and operating within design parameters; and

5. Time, date, and cause of scrubber failure and/or down time, if applicable.

501.3 ECS O&M Plan Records: An owner ~~or~~ and/or operator of a ~~facility~~ a nonmetallic mineral processing plant, an asphaltic concrete plant, a concrete plant and bagging operation, and/or any other associated operation subject to this rule shall maintain ~~a record of the periods of time than an approved ECS is used to comply with this rule. Key system parameters, such as flow rates, pressure drops, and other conditions necessary to determine if the control equipment is functioning properly, shall be recorded in accordance with the approved O&M Plan. The records shall account for any periods when the control system was not operating. The owner or operator of a facility shall also maintain results of the visual inspection and shall record any corrective action taken, if necessary.~~ all of the following records in accordance with an approved O&M Plan:

a. Periods of time that an approved ECS is operating to comply with this rule;

b. Periods of time that an approved ECS is not operating;

c. Flow rates;

d. Pressure drops;

e. Other conditions necessary to determine if the approved ECS is functioning properly;

f. Results of visual inspections; and

g. Correction action taken, if necessary.

502 COMPLIANCE DETERMINATION/TEST METHODS ADOPTED BY REFERENCE: The test methods for those subparts of 40 Code Of Federal Regulations (CFR) Part 60, Appendix A, adopted as of ~~July 1, 1998~~ July 1, 2003, as listed below, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in Section 502 of this rule are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, Arizona, 85004-1942. When more than one test method is permitted for a compliance determination, then an exceedance of the limits established in this rule, determined by any of the applicable test methods, constitutes a violation of this rule.

502.1 Grain Loading: Particulate matter and associated moisture content shall be determined using the applicable EPA Reference Methods 1 through 5, 40 CFR Part 60, Appendix A.

502.2 Opacity Determination: Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A, except the opacity observations for intermittent visible emissions shall require 12 (rather than 24) consecutive readings at 15-second intervals.

502.3 Stabilization Determination: Stabilization determinations shall be determined using ASTM Method D2216-98 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), 1998 edition and ASTM Method D1557-91 (1998) ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)"), 1998 edition.